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THE CONTROL OF INSECT PESTS ON RENTED ACREAGE IN CONNECTION WITH
AGRICULTURAL ADJUSTMENT CONTRACTS

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★ FEB 5 - 1934 ★
U. S. Department of Agriculture

Insect pests should be considered in choosing practices for contracted acres in connection with the Allotment Control Contracts. In a memorandum to the Secretary of Agriculture, Mr. Lee A. Strong, Chief of the Bureau of Entomology, points out the danger that might result in the handling of contracted or rented acreage unless the proper consideration is given to the control of insect pests in regions specified. Mr. Strong makes the following statements in his memorandum to the Secretary:

"It is believed that the damage from most of the insects attacking cotton may be increased to some extent if the acreage taken out of cotton production is not given attention, but the boll weevil and cotton flea hopper are the two most important insects affected. The danger is from volunteer cotton which sprouts from the old stalks or from seed scattered in the field providing early season breeding places for boll weevils and other insects and from weeds on which the flea hopper breeds.

It is difficult to outline the areas where volunteer cotton may occur because this varies so much from year to year, depending upon climatic conditions during the winter. In general this area may be said to include Florida, the southern part of Georgia, Louisiana, Alabama, Mississippi, and Texas, as well as the irrigated sections of the West.

In connection with the boll weevil problem we would like to call attention to the fact that the boll weevils are nearly always more numerous in the early spring on cotton-growing close to woods in which the weevils hibernate than in fields further removed from the woods. Other considerations being equal, we recommend that the land nearest the woods be utilized for other purposes and that cotton be planted as far as possible from wooded areas.

The cotton flea hopper sporadically causes considerable damage over most of the southern cotton-producing states but is injurious almost every year in the eastern and southeastern sections of Texas. The flea hopper passes the winter in the egg stage. The eggs are laid chiefly in the stems of goatweed (Croton) and the greatest damage occurs in those areas where goatweed grows in abundance. The young hoppers hatching from the overwintering eggs feed and multiply on such weeds as horse mint, evening primrose, and Croton and then migrate to cotton. It is, therefore, desirable to prevent those weeds from growing on land taken out of cotton. This is especially true for Croton as over ninety-five per cent of the overwintering eggs are laid in this plant, and it is a weed which is apt to grow in abundance on land taken out of cultivation.

In California, the areas on the western side of the San Joaquin Valley, utilized very largely for the production of grain and cotton, are of particular importance in the production of large populations of beet leafhopper when the land is permitted to grow up in weeds. The most important weeds concerned in these areas are the Russian thistle and the annual Antriplexes. This region extends from Tracy south along the western side of the San Joaquin Valley to the Tulare Basin. The section south of the Tulare Basin is of some importance, but probably does not affect leafhopper populations in the critical areas.

In Idaho the areas with which we are chiefly concerned are in Twin Falls, Gooding, Jerome, and Minidoka counties, where abandoned land rapidly produces Russian thistle and mustards, both of which are important hosts of the beet leafhopper and seriously affect the production of sugar beets in the counties mentioned.

The portion of the area where wheat stubble should not be left standing because of infestation by eggs of the migratory grasshopper is, roughly, the infested area of Montana, Wyoming, North Dakota, and the northern part of South Dakota.

The area subject to wireworm infestation includes the dry-land farming sections of eastern and central Washington and Oregon, and southern Idaho. It is in this general area that clean (free of all weeds) summer fallow should be maintained to control wireworms."

The Bureau of Entomology can furnish circulars on the control of the migratory grasshopper, and information in regard to the control of the cotton flea hopper and the cotton boll weevil.

Summer following, cultivation or other methods of weed control, the planting of soil-improvement crops to be turned under, and the planting of new seedings of erosion-preventing grasses and legumes are practices approved by the Agricultural Adjustment Administration in the handling of rented acres. In choosing practices to be employed on the rented acreage the matter of controlling insect pests should be given careful consideration.

J. F. Cox,
Chief, Replacement Crops Section,
Agricultural Adjustment Administration.

January 4, 1934.